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Message-Id: <199608200028.TAA16510@uro.theporch.com>
Errors-To: ws4s@midtenn.net
Reply-To: glowbugs@theporch.com
Originator: glowbugs@theporch.com
Sender: glowbugs@theporch.com
Precedence: bulk
From: glowbugs@theporch.com
To: Multiple recipients of list <glowbugs@theporch.com>
Subject: GLOWBUGS digest 266
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@theporch.com
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GLOWBUGS Digest 266

Topics covered in this issue include:

- 1) Re: Crystal Grinding (fwd)
by EricNess@aol.com

Date: Sun, 18 Aug 1996 21:00:18 -0400
From: EricNess@aol.com
To: glowbugs@theporch.com
Subject: Re: Crystal Grinding (fwd)
Message-ID: <960818210018_459573085@emout07.mail.aol.com>

There are still a few of us still grinding crystals by hand. All most of the crystals I use in my "Little Whooper" 6AQ5A transmitter were reground.

At first I had trouble moving surplus FT-243, 6 MHz range crystals more than 100 KCs or so but, now with practice, I am able to move crystals 250 KCs without losing activity. I haven't yet tried to move a crystal frequency more than 300 KC since I had found a fair number of crystals falling into the 6.8 to 7.0 MHz range. Now than those crystals are gone, I will have to try my skills on the 6.7xx MHz crystals.

As for grinding compounds, I found that just about any abrasive household cleaning product works. Ordinary kitchen cleanser works well but the abrasive is rather fine and it takes a long time to move the frequency. I have also tried the so called "soft" or liquid cleansers and found that the

abrasive even finer. The stuff I use to move the frequency initially is an abrasive metal cleaner used for scrubbing pots. When I get close to the desired frequency, I switch to cleanser.

When grinding, I hold the crystal by two opposite corners using my thumb and index finger. After making 10 or 20 figure eights, I will rotate the crystal 45 degrees. In order to get a reasonable amount of frequency movement, a fair amount of pressure is needed. Using the copper cleaner abrasive, I find that 100 figure eights moves the frequency about 10 KC.

If the crystal frequency is only moved a small amount, a loss in crystal activity is not likely but, when moving the frequency more than 50 KC some loss of activity can be expected. I have found that beveling the edges will restore crystal activity in most cases.

For a more detailed discussion of grinding surplus crystals, there was an excellent article in November 1957 CQ Magazine. I am willing to provide copies to those who are interested.

73,

Eric, WD6DGX

End of GLOWBUGS Digest 266
